

Washington Statistical Society

CHAPTER • AMERICAN STATISTICAL ASSOCIATION



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NEWSLETTER - FEBRUARY 1976

- February 24 - Study of the Measure of Poverty
- February 18 - Sample Survey Design Strategies for Estimating Disease Incidence and Prevalence
- February 18 - The Benchmark Revision of the GNP
- February 19 - Size-biased Sampling
- February 20 - Statistical Packages Offered by Local Time-Sharing Vendors
- February 24 - A New Method for Reliability Analysis When Failure Data is Sparse
- February 26 - Cross-tabulation Analysis in Complex Surveys

SOCIAL AND DEMOGRAPHIC STATISTICS PROGRAM

Topic: Study of the Measure of Poverty

Session Chairman: Bette S. Mahoney, Chairman of the Poverty Studies Task Force, Office of the Assistant Secretary for Planning and Evaluation, Department of Health, Education and Welfare

Summary of the Report: George F. Grob, Staff Director, Poverty Studies Task Force, Office of the Assistant Secretary for Planning and Evaluation, Department of Health, Education and Welfare

Discus-sants: Herman Miller, Consultant, Office of the Assistant Secretary for Education, Department of Health, Education and Welfare
Milo Sunderhauf, Statistical Policy Division, Office of Management and Budget

Section 823 of the Education Amendments of 1974 mandates a study of ways to improve the accuracy and currency of the poverty measure used as a parameter in the program of financial assistance authorized by Title I of the Elementary and Secondary Education Act of 1965. This poverty measure is the Orshansky matrix, which in 1969 was adopted by the Office of Management and Budget as the Federal government's official statistical measure. Various proposals have been made to change the Orshansky measure. A report prepared by the Poverty Studies Task Force, an interagency committee under the leadership of the Department of Health, Education and Welfare examines the alternatives. A summary and discussion of the report are to be presented.

When and Where: Tuesday, February 24, 1976, 12:30 to 2:00 P.M.
George S. Boutwell Auditorium, 7th Floor, IRS Building
1111 Constitution Ave., N.W.

PUBLIC HEALTH AND BIostatISTICS PROGRAM

Topic: Sample Survey Design Strategies for Estimating Disease Incidence and Prevalence

Speaker: Monroe G. Sirkin, National Center for Health Statistics

Chairman: Tavia Gordon, National Heart and Lung Institute

Recent developments in designing household surveys and medical provider surveys to produce disease statistics will be reviewed and discussed.

When and Where: Wednesday, February 18, 1976, 11:00 to 12:30.
Conference Room 5, Bldg. 31
National Institute of Health

ECONOMICS PROGRAM

Topic: The Benchmark Revision of the GNP

Speakers: Allan Young, Bureau of Economic Analysis
John Gorman, Bureau of Economic Analysis

Chairman: Martin Marimont, Bureau of Economic Analysis

A major comprehensive revision of GNP has been completed by the Bureau of Economic Analysis. This is the first comprehensive revision since 1965. The speakers will discuss the statistical revisions and the changes in definition introduced in the National Income and Product accounts.

When and Where: Wednesday, February 18, 1976, 12:30 to 2:00 P.M.
Tower Building, Basement Conference Room, 14th & K
Sts., N.W. (To gain entrance to building, show guard a
copy of this newsletter, or Government ID, or sign
in with guard.)

METHODOLOGY PROGRAM

Topic: Size-biased Sampling

Speaker: G.P. Patil, Pennsylvania State University

Chairman: James E. Mosimann, National Institute of Health

Discussant: Myron Katzoff, Social Security Administration

"Size-biased sampling" is a relatively new concept in statistics which, perhaps, can best be described by contrasting it with more familiar procedures, such as simple random sampling and sampling with probability proportional to size (PPS). In simple random sampling, the probability of selection of each unit is the same regardless of the value of the random variable observed. In size-biased sampling, the probability of selection of a unit is proportional to a predetermined weight function which does depend on the value of that unit. Size-biased sampling differs from standard PPS sampling in that the size measures used are not based on some known ancillary variable but, instead, on the unknown value of the variable which is, itself, to be studied and recorded.

Professor Patil will present some examples of practical settings in which size-biased sampling can arise. He will also discuss the conditions required for the underlying distributions to retain their form when subjected to size-biased sampling.

When and Where: Thursday, February 19, 1976, 12:30 to 2:00 P.M.
George Washington University, Room 101 Building C,
2201 - G Street, N.W.

COMPUTER TECHNOLOGY PROGRAM

Topic: Statistical Packages Offered by Local Time-Sharing Vendors

Speaker: Ruth E. Mellen, Consultant

Chairman: Richard Taeuber, Subcommittee on Censuses and Population
House of Representatives

An overview of the capabilities, strengths, weaknesses, costs and date management features of statistical computer programs offered by time-sharing companies in the Capital region. User orientation, statistical outlook and ease of use will be discussed.

Handouts will be provided of the results of trial runs made on each of the packages wherever possible.

When and Where: Friday, February 20, 1976, 12:30 to 2:00 P.M.
Martin Luther King Library, 9th and G Sts., N.W. Room A5.

PHYSICAL SCIENCE AND ENGINEERING PROGRAM

Topic: A New Method for Reliability Analysis When Failure Data is Sparse

Speaker: Professor Janet M. Myhre, Director, The Institute of Decision Science
for Business and Public Policy, Claremont Men's College, Claremont, California

Chairman: Dr. Harry Weingarten, National Highway Traffic Safety Administration,
Department of Transportation

A method for obtaining confidence bounds on the reliability of complex systems using component test data which contains few or no failures will be outlined. Application of this method to Navy systems will be given. The use of this method for reliability demonstration analysis will be discussed.

When and Where: Tuesday, February 24, 1976, 12:30 to 2:00 P.M.
Naval Sea Systems Command, National Center Building 3
(Zachary Taylor Building) 2531 Jefferson Davis Highway,
Arlington, Virginia
Command Conference Room 3 S11 (3rd floor, South Corridor)
Paid Parking available in lot on 26th St. or at Chrystal City lot

METHODOLOGY PROGRAM

Topic: Cross-tabulation Analysis in Complex Surveys

Speakers: Dwight Brock, National Center for Health Statistics
Dan Freeman and Gary Koch, Yale University and
University of North Carolina

Chairperson: Marvin Kastenbaum, Tobacco Institute, Inc.

Discussant: Robert Fay, Bureau of the Census

A well-known approach to the analysis of categorical data is the weighted least squares methodology developed by Grizzle, Starmer and Koch. To study the feasibility of using this technique in complex surveys, an empirical investigation was recently completed using two sets of physician visit data from the Health Interview Survey of the National Center for Health Statistics. One set of data consists of the number of visits per person per year classified by age, sex, and race, while the other set uses the same response classified by family income, education of head of household, and residence. The speakers will present some of the results of this study.

When and Where: Thursday, February 26, 1976, 12:30 to 2:00 P.M.
George Washington University, Rm. 101, Bldg. C,
2201 G St., N.W.

Listed below is a brief description of the qualifications of the individual submitting an application seeking employment. Any employer interested in interviewing the applicant should notify Mrs. Marie D. Eldridge of their interest by Code Number. The notification should be by mail and should include the employer's name, organization, and telephone number. The employee will be notified of the employer's interest and initiation of any further contact will be left to the employee. All contacts will be confidential. Mrs. Eldridge's address is: Administrator, National Center for Education Statistics, 400 Maryland Avenue, S.W., Room 3073, Washington, D.C. 20202

Code Number

1-1-76

Applicant

(1) B.S. Engineering and Humanities, 30 semester hours in statistics; (2) Regression, Multivariate Techniques, Survey Design, Computer Programming, Statistical Packages, Analysis of Data; (3) 13 years government and non-profit institutions; (4) \$19,000; (5) Government or Industry, D.C. Area

Code:

- (1) Education
- (2) Fields of Competence
- (3) Years of Experience
- (4) Salary or GS Level Requirement
- (5) Type of Employment and Geographic Area

SPECIAL YEAR IN PROBABILITY AND STATISTICS
AT UNIVERSITY OF MARYLAND

The following is the February lecture schedule:

Professor Tore Dalenius, Division of Applied Mathematics,
Brown University

Friday, February 6 "PRIVACY AND CONFIDENTIALITY ISSUES IN
CENSUSES AND SURVEYS"

3:00 p.m.
Room Y3205 (Math Bldg.)

Professor B. V. Sukhatme, Department of Statistics,
Iowa State University

Tuesday, February 24 "SOME PROBLEMS IN DESIGNING SURVEYS
Thursday, February 26 and ANALYSIS OF SURVEY DATA"

4:00 p.m.
Room Y4419 (Math. Bldg.)

Coffee will be served prior to the seminars.

For future schedule and other information, contact Grace Yang,
Department of Mathematics, (454-4884), University of Maryland,
College Park, Maryland 20742.